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JUN 10 2003

TECH CENTER 1600



1600

RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/674,195C

DATE: 06/03/2003

TIME: 13:20:06

Input Set : A:\150190\_1.doc

Output Set: N:\CRF4\06032003\I674195C.raw

4 <110> APPLICANT: Rosely M. Zancope-Oliveira  
5 Timothy J. Lott  
6 Leonard W. Mayer  
7 Errol Reiss  
8 George S. Deepe  
11 <120> TITLE OF INVENTION: NUCLEIC ACIDS OF THE M ANTIGEN GENE OF  
12 HISTOPLASMA CAPSULATUM, ANTIGENS, VACCINES AND ANTIBODIES,  
13 METHODS AND KITS FOR DETECTING HISTOPLASMOSIS  
16 <130> FILE REFERENCE: 14114.0325U2  
18 <140> CURRENT APPLICATION NUMBER: 09/674,195C  
19 <141> CURRENT FILING DATE: 2000-10-26  
21 <150> PRIOR APPLICATION NUMBER: PCT/US99/09151  
22 <151> PRIOR FILING DATE: 1999-04-27  
24 <150> PRIOR APPLICATION NUMBER: 60/083,676  
25 <151> PRIOR FILING DATE: 1998-04-30  
27 <160> NUMBER OF SEQ ID NOS: 20  
29 <170> SOFTWARE: FastSEQ for Windows Version 4.0  
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32 <211> LENGTH: 3862  
33 <212> TYPE: DNA  
34 <213> ORGANISM: Histoplasma capsulatum  
36 <220> FEATURE:  
37 <221> NAME/KEY: misc\_feature  
38 <222> LOCATION: 3258  
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44 ttttattttc attcatcttc tctgtggcaa acatgcaggt atgcgagctc tggaccctgg 180  
45 ggtgtggccc ttgatgcata tggtttattt atagccgccc ggaagccctg gcctgttaaa 240  
46 ttttggaact cctcccgcca ttctttccaa acttcgtgag tccgtttccc atttccccc 300  
47 tccccatttg ggttccctat aggccactgc gtgctccact caagaagggt cccagtcaat 360  
48 ttggtcccta cctctccaa cactatctgc atatgtaata tatatcgata tctaactgcc 420  
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53 acagtcggtg ctaacaacgg acgtgggtgg tcccatcgag gaccaacaca gcctgaaggc 720  
54 tggaaataga ggcccaactc tacttgagga ttttatcttc cgccagaaga ttcaacactt 780  
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ENTERED

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72 caccccaatc ggaaaaatgg tcttgaaccg aaacccaaaa agttattttg ccgaaactga 1860
73 gcagatcatg gttggtccac cccctatata tttggaatat gaatacatgt atagctagat 1920
74 gaagcgtata tctaaatata tttccacagt tccaaccagg tcatgtagtt cgcggaatcg 1980
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111 <210> SEQ ID NO: 2

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114 <213> ORGANISM: Histoplasma capsulatum
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120 20 25 30
121 Gln Ser Val Leu Thr Thr Asp Val Gly Gly Pro Ile Glu Asp Gln His
122 35 40 45
123 Ser Leu Lys Ala Gly Asn Arg Gly Pro Thr Leu Leu Glu Asp Phe Ile
124 50 55 60
125 Phe Arg Gln Lys Ile Gln His Phe Asp His Glu Arg Val Pro Glu Arg
126 65 70 75 80
127 Ala Val His Ala Arg Gly Ala Gly Ala His Gly Val Phe Thr Ser Tyr
128 85 90 95
129 Asn Asn Trp Ser Asn Ile Thr Ala Ala Ser Phe Leu Asn Ala Ala Gly
130 100 105 110
131 Lys Gln Thr Pro Val Phe Val Arg Phe Ser Thr Val Ala Gly Ser Arg
132 115 120 125
133 Gly Ser Val Asp Ser Ala Arg Asp Ile His Gly Phe Ala Thr Arg Leu
134 130 135 140
135 Tyr Thr Asp Glu Gly Asn Phe Asp Ile Val Gly Asn Asn Val Pro Val
136 145 150 155 160
137 Phe Phe Ile Gln Asp Ala Ile Gln Phe Pro Asp Leu Ile His Ala Val
138 165 170 175
139 Lys Pro Gln Pro Asp Ser Glu Ile Pro Gln Ala Ala Thr Ala His Asp
140 180 185 190
141 Thr Ala Trp Asp Phe Leu Ser Gln Gln Pro Ser Ser Leu His Ala Leu
142 195 200 205
143 Phe Trp Ala Met Ser Gly His Gly Ile Pro Arg Ser Met Arg His Val
144 210 215 220
145 Asp Gly Trp Gly Val His Thr Phe Arg Leu Val Thr Asp Glu Gly Asn
146 225 230 235 240
147 Ser Thr Leu Val Lys Phe Arg Trp Lys Thr Leu Gln Gly Arg Ala Gly
148 245 250 255
149 Leu Val Trp Glu Glu Ala Gln Ala Leu Gly Gly Lys Asn Pro Asp Phe
150 260 265 270
151 His Arg Gln Asp Leu Trp Asp Ala Ile Glu Ser Gly Arg Tyr Pro Glu
152 275 280 285
153 Trp Glu Leu Gly Phe Gln Leu Val Asn Glu Ala Asp Gln Ser Lys Phe
154 290 295 300
155 Asp Phe Asp Leu Leu Asp Pro Thr Lys Ile Ile Pro Glu Glu Leu Val
156 305 310 315 320
157 Pro Phe Thr Pro Ile Gly Lys Met Val Leu Asn Arg Asn Pro Lys Ser
158 325 330 335
159 Tyr Phe Ala Glu Thr Glu Gln Ile Met Phe Gln Pro Gly His Val Val
160 340 345 350
161 Arg Gly Ile Asp Phe Thr Asp Asp Pro Leu Leu Gln Gly Arg Leu Tyr

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162          355          360          365
163 Ser Tyr Leu Asp Thr Gln Leu Asn Arg His Gly Gly Pro Asn Phe Glu
164          370          375          380
165 Gln Leu Pro Ile Asn Arg Pro Arg Ile Pro Phe His Asn Asn Asn Arg
166 385          390          395          400
167 Asp Gly Ala Gly Gln Met Phe Ile Pro Leu Asn Thr Ala Ala Tyr Thr
168          405          410          415
169 Pro Asn Ser Met Ser Asn Gly Phe Pro Gln Gln Ala Asn Arg Thr His
170          420          425          430
171 Asn Arg Gly Phe Phe Thr Ala Pro Gly Arg Met Val Asn Gly Pro Leu
172          435          440          445
173 Val Arg Glu Leu Ser Pro Ser Phe Asn Asp Val Trp Ser Gln Pro Arg
174          450          455          460
175 Leu Phe Tyr Asn Ser Leu Thr Val Phe Glu Lys Gln Phe Leu Val Asn
176 465          470          475          480
177 Ala Met Arg Phe Glu Asn Ser His Val Arg Ser Glu Thr Val Arg Lys
178          485          490          495
179 Asn Val Ile Ile Gln Leu Asn Arg Val Asp Asn Asp Leu Ala Arg Arg
180          500          505          510
181 Val Ala Leu Ala Ile Gly Val Glu Pro Pro Ser Pro Asp Pro Thr Phe
182          515          520          525
183 Tyr His Asn Lys Ala Thr Val Pro Ile Gly Thr Phe Gly Thr Asn Leu
184          530          535          540
185 Leu Arg Leu Asp Gly Leu Lys Ile Ala Leu Leu Thr Arg Asp Asp Gly
186 545          550          555          560
187 Ser Phe Thr Ile Ala Glu Gln Leu Arg Ala Ala Phe Asn Ser Ala Asn
188          565          570          575
189 Asn Lys Val Asp Ile Val Leu Val Gly Ser Ser Leu Asp Pro Gln Arg
190          580          585          590
191 Gly Val Asn Met Thr Tyr Ser Gly Ala Asp Gly Ser Ile Phe Asp Ala
192          595          600          605
193 Val Ile Val Val Gly Gly Leu Leu Thr Ser Ala Ser Thr Gln Tyr Pro
194          610          615          620
195 Arg Gly Arg Pro Leu Arg Ile Ile Thr Asp Ala Tyr Ala Tyr Gly Lys
196 625          630          635          640
197 Pro Val Gly Ala Val Gly Asp Gly Ser Asn Glu Ala Leu Arg Asp Val
198          645          650          655
199 Leu Met Ala Ala Gly Gly Asp Ala Ser Asn Gly Leu Asp Gln Pro Gly
200          660          665          670
201 Val Tyr Ile Ser Asn Asp Val Ser Glu Ala Tyr Val Arg Ser Val Leu
202          675          680          685
203 Asp Gly Leu Thr Ala Tyr Arg Phe Leu Asn Arg Phe Pro Leu Asp Arg
204          690          695          700
205 Ser Leu Val
206 705
209 <210> SEQ ID NO: 3
210 <211> LENGTH: 8
211 <212> TYPE: PRT
212 <213> ORGANISM: Histoplasma capsulatum

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214 <400> SEQUENCE: 3  
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 221 <211> LENGTH: 15  
 222 <212> TYPE: PRT  
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 230 <211> LENGTH: 9  
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 232 <213> ORGANISM: Histoplasma capsulatum  
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 236 1 5  
 238 <210> SEQ ID NO: 6  
 239 <211> LENGTH: 16  
 240 <212> TYPE: PRT  
 241 <213> ORGANISM: Histoplasma capsulatum  
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 245 1 5 10 15  
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 248 <211> LENGTH: 6  
 249 <212> TYPE: PRT  
 250 <213> ORGANISM: Histoplasma capsulatum  
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 254 1 5  
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 258 <211> LENGTH: 10  
 259 <212> TYPE: PRT  
 260 <213> ORGANISM: Histoplasma capsulatum  
 262 <400> SEQUENCE: 8  
 263 Phe Asp Phe Asp Leu Leu Asp Pro Thr Lys  
 264 1 5 10  
 266 <210> SEQ ID NO: 9  
 267 <211> LENGTH: 14  
 268 <212> TYPE: PRT  
 269 <213> ORGANISM: Artificial Sequence  
 271 <220> FEATURE:  
 272 <223> OTHER INFORMATION: Description of Artificial Sequence; M antigen-specific  
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 275 Ile Ile Pro Glu Glu Leu Val Pro Phe Thr Pro Ile Gly Lys  
 276 1 5 10  
 277 <210> SEQ ID NO: 10  
 278 <211> LENGTH: 15

RAW SEQUENCE LISTING ERROR SUMMARY  
PATENT APPLICATION: US/09/674,195C

DATE: 06/03/2003  
TIME: 13:20:07

Input Set : A:\150190\_1.doc  
Output Set: N:\CRF4\06032003\I674195C.raw

Please Note:

Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.

Seq#:1; N Pos. 3258

Seq#:11; N Pos. 3,9

VERIFICATION SUMMARY

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L:96 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:1 after pos.:3240  
L:328 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:11 after pos.:0